

CLAIMS

What is claimed is:

1. A reciprocating saw comprising:
a housing containing a motor;
a carrier slidably disposed within said housing, said carrier including a first portion having a channel adapted to receive a saw blade and a second portion having a slot therethrough;
a rotatable element fixed for rotation about an output shaft of said motor; and
a follower for operably interconnecting said carrier and said rotatable element wherein rotation of said rotatable element provides reciprocal linear motion of said carrier whereby said follower follows a reciprocal linear path within said slot.
2. The reciprocating saw of claim 1, wherein said slot includes lateral walls extending from opposing edges thereof.
3. The reciprocating saw of claim 2, wherein said lateral walls include a first and second pair of laterally opposed walls, said first pair of walls laterally offset from said second pair of walls by a first and second channel formed in said carrier member.

4. The reciprocating saw of claim 3, wherein said channels are oriented whereby said output shaft extends therethrough as said follower follows said reciprocal linear path within said slot.

5. The reciprocating saw of claim 4, wherein said follower includes a slider laterally extending in a first direction a width so as to slidably interfit between said first and second laterally opposed walls and in a second direction a width greater than said channels.

6. The reciprocating saw of claim 5, wherein said follower further includes a roller coupled to said slider, said roller configured to rotatably interface said lateral walls as said follower follows said reciprocal linear path within said slot.

7. The reciprocating saw of claim 6, wherein said housing further includes a fan operable to direct air through said second portion of said carrier to said first portion of said carrier.

8. The reciprocating saw of claim 7, whereby said fan further directs air out of said housing through vents incorporated therein.

9. The reciprocating saw of claim 1, wherein said reciprocating saw further includes a releasably attached base portion, said base portion including a first pair of lateral rails extending therefrom for slidably engaging a second pair of lateral walls incorporated on said housing.

10. The reciprocating saw of claim 10, wherein one of said housing and said base further includes a latch for selectively coupling said base to said housing.

11. A reciprocating saw comprising:

- a housing containing a motor;
- a saw blade having a cutting edge, a mounting edge and a side surface, said side surface defining a first plane;
- a carrier member having a first portion including a base defining a second plane, said base adapted to receive said saw blade wherein said first plane is parallel to said second plane, and a second portion in communication with said motor, said second portion having a slot therethrough defining a guide path;
- a rotatable element fixed for rotation about an output shaft extending from said motor;
- a follower for operably interconnecting said carrier and said rotatable element wherein rotation of said rotatable element provides reciprocal linear motion of said carrier whereby said follower follows a reciprocal linear pattern within said guide path.

12. The reciprocating saw of claim 11, wherein said lateral wall sections include a first and second pair of laterally opposed walls, said first pair of walls laterally offset from said second pair of walls by a first and second channel formed in said carrier member.

13. The reciprocating saw of claim 12, wherein said channels are oriented whereby said output shaft extends therethrough as said follower follows said reciprocal linear path within said slot.

14. The reciprocating saw of claim 11, wherein said follower includes a slider rotatably coupled thereto, said slider laterally extending in a first direction defining a width so as to slidably interfit between said first and second laterally opposed walls and in a second direction a width greater than said channels.

15. The reciprocating saw of claim 14, wherein said follower further includes a roller coupled to said slider, said roller configured to rotatably interface said lateral walls as said follower follows said reciprocal linear pattern within said guide path.

16. The reciprocating saw of claim 11, wherein said housing further includes a fan operable to direct air through said second portion of said carrier to said first portion of said carrier.

17. The reciprocating saw of claim 16, whereby said fan further directs air out of said housing through vents incorporated therein.

18. The reciprocating saw of claim 11, wherein said reciprocating saw further includes a removable base, said removable base including a first pair of lateral rails extending therefrom for slidably engaging a second pair of lateral walls incorporated on said housing.

19. The reciprocating saw of claim 18, wherein one of said housing and said removable base further includes a latch for selectively coupling said removable base to said housing.

20. A reciprocating saw comprising:

- a housing containing a motor;
- a saw blade having a shank portion and a cutting portion;
- a carrier having a first portion adapted to receive said saw blade and a second portion in communication with said motor, said first portion including a pair of lateral walls and a base portion extending therebetween;
- a clamp extending from said lateral walls and operable to engage said saw blade at an interface edge to retain said shank portion of said saw blade within said first portion of said carrier; and
- a cam member extending between said lateral walls, said cam member positioned from said base portion forming a channel to receive said saw blade, said cam member extends adjacent a portion of the blade between said interface edge and said cutting portion.

21. A reciprocating saw comprising:

- a housing containing a motor;
- a drive mechanism coupled to said motor;
- a carrier disposed within said housing and operable to interconnect a saw blade to said drive mechanism for translating rotational movement of said motor into linear actuation of said saw blade; and
- a releasably attached base portion, said base portion including a first pair of lateral rails extending therefrom for slidably engaging a second pair of lateral rails incorporated on said housing, one of said housing and said base further including a latch for selectively coupling said base to said housing.

22. The reciprocating saw of claim 21, wherein said latch is biased into an engaged position against a stop extending from said base.

23. The reciprocating saw of claim 22, wherein said latch is movable between said engaged position and a disengaged position.